REMARKS/ARGUMENTS

Claims 1-22 are pending. Claims 1, 3, 6, 9, 12, and 17 are independent claims. The remaining claims depend, directly or indirectly, from the independent claims. All of the claims are rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent Number 6,122,763 (hereinafter "Pyndiah"). Applicant disagrees with the rejections for the reasons set forth below.

<u>Claim 1.</u>

Claim 1 recites a method for encoding information signals, comprising:

loading information symbols into a data array with $n^{(1)}$ rows and $n^{(2)}$ columns, wherein each column has $k_i^{(1)}$ information symbols, and wherein $k^{(1)}$ is an array that has at least two different values;

encoding each column with a code $C_i^{(1)}$ from a family of nested codes $C^{(1)}$, wherein $C^{(1)}$ includes two different nested codes; and

encoding each row with a code $C^{(2)}$.

Claim 1 was rejected with reference to Fig. 2 and column 10, lines 41-63 of Pyndiah. Fig. 2 discloses a method in which a rectangular matrix is formed having k_1 rows and k_2 columns (21). Code is applied to the rows to add check symbols and expand the matrix to n_2 columns (22). Similarly, code is applied to the columns to add check symbols and expand the matrix to n_1 rows (23).

However, Fig. 2 of Pyndiah fails to teach or suggest the element "*each column has $k_i^{(1)}$ information symbols, and wherein $k^{(1)}$ is an array that has at least two different values*" from claim 1. In contrast, Fig. 2 of Pyndiah teaches a matrix in which each column has the same number of information symbols. Check symbols are added, but the columns of information symbols do not have at least two different values. *See*, for example, the right portion of Fig. 2 in which matrix {a} has k_1 information symbols in each column at step 21, wherein matrix {b} still has k_1 information symbols in each column at step 22, and wherein matrix {c} still has k_1 information symbols in each column. Additional check symbols are added to yield a total of n_1 symbols in each column as a result of the code applied to the columns in step 23. However, the number of information symbols stays the same.

In addition, Fig. 2 of Pyndiah fails to teach the element *"encoding each column with a code*
$C_i^{(1)}$ *from a family of nested codes* $C^{(1)}$*, wherein* $C^{(1)}$ *includes two different nested codes"* from claim
1. In contrast, Fig. 2 of Pyndiah teaches applying the same code C_1 to the columns. *See*, reference
23 in Fig. 2 of Pyndiah. This part of Fig. 2 of Pyndiah teaches away from the claimed invention
because it specifically teaches applying the same code, C_1, to all of the n_2 columns.

The Action also cites Pyndiah at column 10, lines 41-63. This text of Pyndiah is with
reference to Fig. 4 and discusses the decoding process. However, this text also fails to teach the
elements of claim 1 which were cited above with reference to Fig. 2.

Therefore, Applicant submits that the cited references of Pyndiah fail to teach at least several
elements recited in independent claim 1. Accordingly, Applicant submits that claim 1 is in condition
for allowance.

Claim 2

Claim 2 depends from claim 1 and recites the method of claim 1, wherein the codes in the
family of codes $C^{(1)}$ are selected from the group consisting of BCH codes, Reed-Solomon codes, and
Reed-Muller codes. Claim 2 is rejected based on Applicant's admitted prior art on page 3, lines 5-
30, of the present application.

Applicant did describe several examples of prior art codes in the Background section of the
present application, including BCH codes and Reed Solomon codes of page 3 of the present
application. Applicant does not claim to have invented those codes and none of the claims recite the
use of those codes outside of the context of the present invention. However, Applicant did not say
that the prior art teaches or suggests combining such codes with the data array and encoding method
recited in claim 1. In fact, Applicant believes that there is no such teaching in the prior art to
combine the particular elements recited in claims 1 and 2. Furthermore, the only motivation to
combine such elements is in the description of the present invention, and not in the description of the
prior art.

Therefore, Applicant submits that there is no teaching to combine the know prior art codes
with the elements recited in claim 1 and, therefore, that claim 2 is in condition for allowance.

3

Remaining Claims

The remaining independent claims 3, 6, 9, 12, and 17 are rejected on grounds similar to those used to reject claim 1 and those claims have limitations similar to at least one of the limitations cited in the above discussion with regard to claim 1. In particular, independent claim 3 was rejected by citing the same portion of Pyndiah as was cited in rejecting claim 1. Independent claim 6 was rejected "for the same reasons as per claim 1". Independent claim 9 was rejected by citing the same portion of Pyndiah as was cited in rejecting claim 1.

Independent claim 12 was rejected by citing the same portion of Pyndiah as was cited in rejecting claim 1 and also by citing Pyndiah at Fig. 7 and column 13, lines 1-25. However, Fig. 7 and the cited text fail to teach the elements of claim 1 which were cited above in the discussion of claim 1.

Independent claim 17 was rejected by citing the same portion of Pyndiah as was cited in rejecting claim 1 and also by citing Pyndiah at Fig. 1. However, Fig. 1 fails to teach the elements of claim 1 which were cited above in the discussion of claim 1.

Dependent claims 4, 5, 7, 8, 10, 11, 15, 16, 21, and 22 are similar to claim 2 and are rejected on grounds similar to that used to reject claim 2. The remaining dependent claims depend, directly or indirectly, from the independent claims. Therefore, Applicant submits that the remaining claims are in condition for allowance for at least the reasons stated above with regard to at least one of claims 1 and 2.
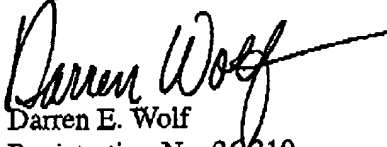
Conclusion.

For the reasons set forth herein, Applicant submits that all claims are in condition for allowance and Applicant respectfully requests that the rejections in the Action be withdrawn and that the application be passed to allowance. If the Examiner has any questions pertaining to this Response or to the subject matter of the present application, the Examiner is encouraged to contact the undersigned.

4

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     Applicant believes that no fees are due with this Response. However, in the event fees are due with this Response, the Commissioner is hereby authorized to debit such fees from Charge Account Number 50-3198, in the name of Dickie, McCamey & Chilcote.

                                   Respectfully submitted,

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5